DETAILED ACTION

Applicant's response to supplementary restriction requirement to the claims has been entered. Applicants' have amended claims 1-3, 5-6, 31-32 and 33, while claims 28-30 have been cancelled. Applicants have also added claims 41-42 generally directed to elected invention.

Currently, claims 1-27, 31-42 are pending.

Election/Restrictions

Applicant's election with traverse, of claims 1-8, 11-15, 19-20, 26-27, 31-40 (Group II), drawn to a nucleic acid construct comprising a nucleic acid sequence further comprising a nucleic acid sequence encoding a reporter protein that is secreted is a human beta choriogonadotrophin (hCG), a host cell comprising the nucleic acid of the invention and method of using cell for in vitro screening was acknowledged. Upon further consideration, claims 21-25 (group VI) were rejoined with the elected invention. It is noted that applicants' have elected administration of chemical drug or other xenobiotics as specie for claims 1-27, 31-42, however, upon further consideration election of species requirement for a inducible promoter is withdrawn and all the species set forth in claim 41 is rejoined with the elected specie.

Claim 9-10, 16-18, 40 directed to a nucleic acid construct comprising a nucleic acid sequence further comprising a nucleic acid sequence encoding a other reporter protein that is secreted, a host cell or transgenic nonhuman animal comprising the nucleic acid encoding a nonelected reporter protein and method of using cell for *in vitro* or *in vivo* remain withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 3/23/2009.

Claims 1-8, 11-15, 19-27, 31-39, 41-42 drawn to a nucleic acid construct comprising a nucleic acid sequence further comprising a nucleic acid sequence encoding a reporter protein that is secreted is a modified human beta choriogonadotrophin (hCG), a nonhuman animal and host cell comprising the nucleic acid and method of using cell for *in vitro* screening are under consideration.

Information Disclosure Statement

The information disclosure statements (IDS) submitted on 09/10/2009 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements have been considered by the examiner.

Specification

The objection to disclosure for containing an embedded hyperlink and/or other form of browser-executable code is withdrawn in view of applicants' amendments to the specification.

Priority

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Great Britain on 09/23/2003.

Withdrawn-Claim Rejections - 35 USC § 102

Claims 19-27, 31-33 were rejected under 35 U.S.C. 102 (b) as being anticipated by Vogelstein et al (US Patent no 6419896 B1, dated 7/16/2002, IDS). In view of Applicants' amendment of base claim 1, introducing the limitation "inducible promoter", the previous rejections of claims 19-27, 31-33 are hereby withdrawn. Applicants' arguments with respect to the withdrawn rejections are thereby rendered moot. The claims are however subject to new rejections over the prior art of record, as set forth below.

Maintained-Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 11, 15, 34-36 remain rejected under 35 U.S.C. 102 (b) as being anticipated by Vogelstein et al (US Patent no 6419896 B1, dated 7/16/2002, IDS).

With respect to claim 1-6, 11, 15, Vogelstein et al teach a nucleic acid sequence comprising a nucleic acid sequence encoding a reporter protein hCG (human chorionic

gonadotropin is a hormone) under the control of a promoter and where the protein or product is expressed or produced (see col2, lines 4-6, col. 4, lines 21, 53and claims 1). The term modified hCG set forth in the claim 11 does not indicate any specific modification that is required to practice the composition nor does it is expected to change in any characteristics of beta hCG. Thus, modified "a" hCG modified sequence is interpreted as any sequence that modifies hCG sequence in any way including one operbaly linked to a promoter that is disclosed by Vogelstein. Vogelstein teaches transcription control of reporter gene under a viral or metallothionein promoter control (col.4, lines 51-65). The nucleic acid construct disclosed by Vogelstein et al and those embraced by the instant claims appear to be structurally same and therefore must necessarily be able to inherently perform functions set forth in claims 2-6. . Where the claimed and prior art products are identical or substantially identical in structure or composition, a prima facie case of either anticipation or obviousness has been established. With respect to claims 34-36, the construct of Vogelstein et al is capable of expression under *in vitro* or *in vivo* (col. 4, lines 25-27, 35-40) or excreted from a nonhuman animal (see col. 5, lines 50-55).

Accordingly, Vogelstein et al anticipates claims 1-6, 11, 15, 19-27, 31-36.

Claims 1-6, 11, 15, 19-27 remain rejected under 35 U.S.C. 102(a) as being anticipated by Matzuk et al (Biology of Reproduction, July 2003, 69, 338-346, online April 2003, IDS).

With respect to claim 1-6, 11, 15, Matzuk et al teach a nucleic acid sequence comprising a nucleic acid sequence encoding a reporter protein hCG (human chorionic gonadotropin is a hormone) under the control of a mMT-1 promoter (see page 339, col.1, para. 3). The term modified hCG set forth in the claim 11 does not indicate any specific modification that is required to practice the composition nor does it is expected to change in any characteristics of beta hCG. Thus, modified "a" hCG modified sequence is interpreted as any sequence that modifies hCG sequence in any way including one operbaly linked to a promoter that is disclosed by Matzuk et al. The nucleic acid construct disclosed by Matzuk et al and those embraced by the instant claims appear to be structurally same and therefore must necessarily be able to inherently perform functions set forth in claims 2-6. Regarding claims 19, 21-27, Matzuk et al teach transgenic mouse and a host cell in mouse comprising the expression construct that expresses the secretable protein (see page 39, col.2, para.6 and table 1) (limitation of claims 19, 21-24) . Matzuk et al also teach the serum and urine level of hCG (table 1) meeting the limitation of claims 24-25. Since, the host cell/ transgenic mouse comprising nucleic acid construct disclosed by Matzuk et al and those embraced by the instant claims appear to be structurally same. Therefore, host cell must necessarily secrete reporter protein of ~60kd which is distinguishable from the endogenous molecule (limitation of claims 26-27).

Accordingly, Matzuk et al anticipates claims 1-6, 11, 15, 19-27.

Response to arguments

A. Vogelstein:

Applicants argue that Vogelstein relies on the constitutive expression of the exogenous marker protein. Applicants assert that such reliance is highlighted by Vogelstein's list of

preferred promoters, which contains a litany of high-level, constitutive expressers: CMV, SV40, RSV, 13-actin promoter and GADPH (Column 4, lines 47-52). Applicants argue that constitutive expression is vital to Vogelstein's invention as it lacks an enabling disclosure for nucleic acid constructs wherein a reporter protein is inducibly expressed (see page 10). Applicants' arguments have been fully considered, but are not found persuasive.

In response, base claim is directed to a nucleic acid construct comprising a nucleic acid encoding a secretable or excretable reporter protein and an inducible promoter that drives the expression of said reporter protein. Applicants have further engaged in selective reading of the teachings of Vogelstein et al. to formulate the grounds for not teaching inducible promoter. Applicants should note that apart form high-level, constitutive expressers: CMV, SV40, RSV, 13-actin promoter and GADPH (Column 4, lines 47-52) , Vogelstein et al also disclose transcription control of reporter gene under a metallothionein promoter control (col.4, line 53) that is metal (CD, Zn, CU) inducible promoter. In response to applicant's argument that claim requires inducible promoter, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is the same as that claimed, both structures have to have the same function. Thus, a prior art structure with the same structure as the claimed structure is capable of performing the intended use, then it meets the claim. Applicants should further note that instant specification also discloses MT-1 as inducible gene that results in expression of protein due to hepatotoxic stress (see specification at page 9, line 18 of the instant application). Thus, the nucleic acid construct disclosed by Vogelstein et al and those embraced by the instant claims appear to be structurally same and therefore must necessarily be able to inherently perform functions set forth in claims 2-6 and 36 . Where the claimed and prior art products are identical or substantially identical in structure or composition, a prima facie case of either anticipation or obviousness has been established. Additionally, "Products of identical chemical composition can not have mutually exclusive properties." A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). With respect to claim 11, the term modified hCG does not indicate any specific modification that is required

to practice the composition nor does it is expected to change in any characteristics of beta hCG. Thus, "a" hCG modified sequence is interpreted as any hCG sequence that has been altered from its endogenous form. A modified hCG sequence includes one operably linked to a heterologous promoter such as that is disclosed by Vogelstein. Applicants' arguments with respect to claims 41 and 42 are moot as these claims are not included in the rejections.

B. Matzuk:

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., reporter protein is inducibly expressed in host cell or transgenic non-human animal) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. In the instant case, Matzuk et al teach a nucleic acid sequence comprising a nucleic acid sequence encoding a reporter protein hCG (human chorionic gonadotropin is a hormone) under the control of a mMT-1 promoter (see page 339, col.1, para. 3). As stated before, instant specification teaches MT-1 as inducible promoter that results in expression of protein due to hepatotoxic stress (see page 9, line 18 of the instant application), it is reasonable to conclude that the construct, host cell and non-human animal disclosed by Matzuk is structurally identical to one claimed in the instant application as there is no evidence to the contrary. Applicants should note that "Products of identical chemical composition can not have mutually exclusive properties." A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Should the base claims be amended to state "the specific modification in hCG", the above obviousness rejection may be overcome pending further consideration.

New-Claim Rejections - 35 USC § 102-Nessitiated by amendments

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6, 11, 15, 19-20 remain rejected under 35 U.S.C. 102(b) as being anticipated by Gallo et al (US Patent no 6319504, dated 11/20/2001).

With respect to claims 1-6, 11, 15, 34-36 and 41, Gallo et al teach a nucleic acid sequence encoding .beta.-hCG or a modified beta-hCG peptide that is operatively linked to a promoter such that beta-hCG or a beta-hCG peptide is produced from said sequence. It is disclosed that a vector can be introduced into a cell, within which cell the vector or a portion thereof is expressed, producing beta-hCG or a portion thereof, wherein said promoter is inducible or tissue specific (See col. 19, lines 38-45). It is further disclosed that the nucleic acid sequence coding for beta-hCG or a beta-hCG peptide is introduced into the cells such that it is expressible by the cells or their progeny, and the recombinant cells are then administered in vivo for therapeutic effect (see col. 21, line 37-44) meeting the limitation of claims 19-20. The nucleic acid construct disclosed by Gallo et al and those embraced by the instant claims appear to be structurally same and therefore must necessarily be able to inherently perform functions set forth in claims 2-6. . Where the claimed and prior art products are identical or substantially identical in structure or composition, a prima facie case of either anticipation or obviousness has been established.

Accordingly, Gallo et al anticipates claims 1-6, 11, 15, 19-20.

Withdrawn-Claim Rejections - 35 USC § 103

Claims 1-8, 11, 13-15, 19-27, 31-39 were rejected under 35 U.S.C. 103(a) as being unpatentable over Vogelstein et al (US Patent no 6419896 B1, dated 7/16/2002, IDS) and Beadet et al (WO/2000/079264, dated 12/28/2000, IDS). In view of Applicants' amendment of base claim 1, introducing the limitation "inducible promoter", the previous rejections of claims 19-27, 31-33 are hereby withdrawn. Applicants' arguments with respect to the withdrawn rejections are thereby rendered moot. The claims are however subject to new rejections over the prior art of record, as set forth below.

Claim 12 was rejected under 35 U.S.C. 103(a) as being unpatentable over Vogelstein et al (US Patent no 6419896 B1, dated 7/16/2002, IDS) and Beadet et al (WO/2000/079264, dated 12/28/2000, IDS) as applied to claims 1-8, 11, 13-15, 19-27, 31-39 above, and further in view of Aprelikova et al (The Journal of Biological Chemistry, 2001, 276, 25647-25650) and Hermeking et al (Mol. Cell, 1997, 1, 3-11). The rejection is withdrawn for the reasons discussed above.

New-Claim Rejections - 35 USC §- necessitated by amendments

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-6, 11, 15, 19-27, 31-36 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al (Int. Journal of Cancer, 2001, 91, 555-562) and Matzuk et al (Biology of Reproduction, July 2003, 69, 338-346, online April 2003, IDS).

Lin teaches a nucleic acid construct comprising a nucleic acid encoding expressible reporter protein and an inducible GADD153 promoter that drives the expression of the reporter protein (see abstract, page 555, col.2, para. 3 bridging page .556; Fig.1). It is further disclosed that expression of reporter protein is induced several fold in presence of several drug/chemical under *in vitro* as well as *in vivo* condition (see table 1) (limitation of claims 1, 34-36 and 41). Thus, Lin et al teach a host cell and a non-human transgenic animal comprising the construct wherein the cells express the protein or protein encoded by the nucleic acid sequence in a mouse (limitation of claims 19-23). Lin further teaches regarding allowing until the tumor size reached 100 mm followed by certain treatments and then establishing a quantitative relationship between cellular injury and reporter expression *in vivo* (page 559, col.1). Lin et al teach a method comprising (i) host cell comprising nucleic acid encoding expressible reporter protein and an inducible GADD153 promoter (ii) the host cell is treated with cisplatin or other chemicals (iii) the activation of reporter gene is signaled by expression of reporter protein (see page 559, col. 1

and 2, figure 5 and 6). Lin further teaches quantitative measurements of relationship between cellular injury and reporter expression by measuring in cisplatin treated and untreated tumor cells (page 559, col.1 bridging col.2; Fig.6) meeting the limitation of claim 31- 32. Lin et al also teach monitoring xenograft of UMSCC10b head and neck carcinoma cells line derived cells that were genetically engineered and selected for expressing constructs of a reporter protein (T10b45 cells, implanted about $1x10^4$ cells at 4 sites) in a female athymic (BALB/c nu/nu) mice, (Abstract, p.555, col.2 bridging p.556) meeting the limitation of claim 33. While Lin et al describe the nucleic acid comprising a nucleic acid encoding a reporter protein under the control of an inducible promoter, but differ from claimed invention by not disclosing wherein the reporter protein is secretable or excretable such as modified hCG.

However use of secretable or excretable reporter such as hCG reporter was known in prior art. For instance, Matzuk et al teach a nucleic acid sequence comprising a nucleic acid sequence encoding a reporter protein hCG (human chorionic gonadotropin is a hormone) under the control of a mMT-1 promoter (see page 339, col.1, para. 3) that is secretable or excretable. It should be noted that the term modified hCG set forth in the claim 11 does not indicate any specific modification to practice the nucleic acid nor does it is expected to change in any characteristics of beta hCG. Thus, modified "a" hCG modified sequence is interpreted as any sequence that modifies hCG sequence in any way including one operbaly linked to a promoter that is disclosed by Matzuk et al. In addition, Matzuk et al teach transgenic mouse and a host cell in mouse comprising the expression construct that expresses the secretable protein hCG (see page 39, col.2, para.6 and table 1) (limitation of claims 19, 21-24). Since, the host cell/ transgenic mouse comprising nucleic acid construct disclosed by Matzuk et al and those embraced by the instant claims appear to be structurally same. Therefore, host cell must necessarily secrete reporter protein of ~60kd which is distinguishable from the endogenous molecule (limitation of claims 26-27).

Therefore, it would have been *prima facie* obvious for a person of ordinary skill in the art seeking to develop a nucleic acid construct for the detection of gene activation events or biochemical changes would combine the respective teachings of Lin and Matzuk et al by modifying the reporter construct by substituting expressible reporter EGFP disclosed of Lin with functionally equivalent secretable reporter hCG et al taught by Matzuk et al, as a matter of

design choice to improve detection of promoter activation over time, said design choice amounting to combining prior art elements according to known methods to yield predictable results. One who would practiced the invention would have had reasonable expectation of success because Lin et al had already described a nucleic acid construct comprising a nucleic acid further comprising a nucleic acid encoding a reporter protein under the control of inducible promoter could be used for the gene activation event or biochemical changes under *in vitro* as well *in vivo*, while Matzuk et al teaches the use of reporter proteins including human growth hormone that are secreted into biological fluids and tissues, it would have only required routine experimentation to modify the construct of Lin et al with reporter protein taught by Matzuk et al to improve the detection of gene activation event in biological fluid and tissues. It should be noted that the *KSR* case forecloses the argument that a specific teaching, suggestion, or motivation is required to support a finding of obviousness See the recent Board decision *Ex parte Smith*, --USPQ2d--, slip op. at 20, (Bd. Pat. App. & Interf. June 25, 2007) (citing *KSR*, 82 USPQ2d at 1396).

Thus, the claimed invention, as a whole, is clearly *prima facie* obvious in the absence of evidence to the contrary.

Claims 1, 7-8, 13-14, 37-39, 41, 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al (Int. Journal of Cancer, 2001, 91, 555-562), Matzuk et al (Biology of Reproduction, July 2003, 69, 338-346, online April 2003, IDS) and Beadet et al (WO/2000/079264, dated 12/28/2000, IDS).

The combined teaching of Lin et al and Matzuk et al have been described above and relied in same manner. While combination of references teaches a nucleic acid construct comprising a nucleic acid sequence further comprising a nucleic acid sequence encoding secretable or excretable reporter protein modified hCG, but differ from claimed invention by not disclosing that the construct further comprises a peptide tag or wherein hCG molecule is myc-tagged.

However, use of reporter gene containing an epitope tag that could be monitored under *in vitro* as well as *in vivo* condition was known and routine in the art. For instance, Beaudet et al teach the use of reporter proteins including human growth hormone with a peptide tag that are

secreted into biological fluids and tissues, for instance blood and urine ((page 16, lines 18-page 17, line 10). It is noted that addition of peptide tag as additional mean for detection of a heterologous reporter protein in explicitly disclosed by Beaudet et al (see page 17, lines 1-4) meeting the limitation of claims 7, 8 and 37. Furthermore, Beaudet et al also teach that epitope tag may include HA, myc or Flag. It is relevant to point out that Beaudet et al disclose that in case of enzyme tags, colorimetric indicator substrates are known that can be employed to provide a detection means that is visibly or spectrophotometrically detectable, to identify specific hybridization with complementary nucleic acid containing samples (see page 32, lines 23-27). Regarding claims 8, 38 and 39, Beaudet et al teach a reporter system comprising a nucleic acid encoding two reporter protein under control of a promoter, wherein each reporter protein could be same or different (see example 7 and claims 1-4).

Therefore, it would have been *prima facie* obvious for a person of ordinary skill to combine the respective teachings of Lin et al, Matzuk et al and Beaudet et al by modifying the reporter protein hCG disclosed by Lin and Matzuk with known methods to myc tag as additional mean for detection of a heterologous reporter protein, with a reasonable expectation of success. A person of skill in the art would have been motivated to modify the reporter protein disclosed by Matzuk et al with myc or other epitope tag as taught by Beaudet, as a matter of design choice, said design choice amounting to combining prior art elements according to known methods to yield predictable results. Given that Beaudet teaches addition of peptide tag as additional and alternative mean for detection of a heterologous reporter protein (supra), it would have been obvious for one of ordinary skill in the art to modify the hCG molecule disclosed by Vogelstein et al with myc or any other epitope tag. Other limitations of reporter system comprising two nucleic acid construct would have been also obvious in view of Beaudet et al who provided guidance to have multiple secreted proteins in a bicistronic marker (see example 7). One who would practiced the invention would have had reasonable expectation of success because Lin and Matzuk et al et al had already described a nucleic acid construct comprising a nucleic acid further comprising a nucleic acid encoding a reporter protein hCG that is secretable or excretable. Beaudet et al teaches the use of reporter proteins including human growth hormone with a myc tag that are secreted into biological fluids and tissues, for instance blood

and urine, it would have only required routine experimentation to modify the construct of Lin and Matzuk et al to with myc tag as taught by Beaudet.

Thus, the claimed invention, as a whole, is clearly *prima facie* obvious in the absence of evidence to the contrary.

Claim 1, 11 and 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al (Int. Journal of Cancer, 2001, 91, 555-562) , Matzuk et al (Biology of Reproduction, July 2003, 69, 338-346, online April 2003, IDS), Aprelikova et al (The Journal of Biological Chemistry, 2001, 276, 25647-25650) /Hermeking et al (Mol. Cell, 1997, 1, 3-11).

The combined teaching of Lin et al and Matzuk et al have been described above and relied in same manner. While combination of references teaches a nucleic acid construct comprising a nucleic acid sequence further comprising a nucleic acid sequence encoding secretable or excretable reporter protein hCG, but differ from claimed invention by not disclosing that construct further comprising a stratifin gene promoter.

However, importance of 14-3-3s protein in cell transformation is suggested by the fact that 14-3-3sigma expression is silenced in the majority of cancers. It is noted that Aprelikova et al teach a nucleic acid construct comprising nucleic acid encoding reporter protein (luciferase) under the control of 14-3-3sigma promoter (stratifin promoter alternative name) (see page 25647, col. 2, para.4). Hermeking et al teach exogenous introduction of *14-3-3σ* into cycling cells results in a G2 arrest. It is noted that Hermeking et al teach he use of the stratifin promoter in combination with a reporter protein (figure 3). The promoter of the 14-3-3sigma gene is a marker of G2/M arrest occurring as a result of DNA damage and it is also transcriptionally upregulated via a p53-dependent mechanism during G2/M arrest in human tumor derived cell lines treatment with adriamycin, also known as doxorubicin (see figure 1).

Therefore, it would have been *prima facie* obvious for a person of ordinary skill in the art to combine the teachings of Lin and Matzuk et al and Aprelikova /Hermeking et al to modify the nucleic acid construct of Lin and Matzuk et al by substituting stress/chemical inducible promoter disclosed by Lin/ Matzuk et al et al with another such as 14-3-3sigma promoter, as a matter of design choice for the detection of a heterologous reporter protein as a result of DNA damage, with a reasonable expectation of success, said design choice amounting to combining

prior art elements according to known methods to yield predictable results. One of ordinary skill in the art would be motivated to use *14-3-3σ* promoter in order to study transcriptional activation of the SFN-reporter gene in response to chemotherapeutics such as adriamycin (supra). One who would practiced the invention would have had reasonable expectation of success because it was routine in the art at the time of filing to substitute one promoter taught by Lin et al with another disclosed by Aprelikova et al / Hermeking, particularly since both had already shown that 14-3-3sigma promoter function well in expression plasmids. It should be noted that the *KSR* case forecloses the argument that a specific teaching, suggestion, or motivation is required to support a finding of obviousness See the recent Board decision *Ex parte Smith*, --USPQ2d--, slip op. at 20, (Bd. Pat. App. & Interf. June 25, 2007) (citing *KSR*, 82 USPQ2d at 1396).

Withdrawn-Claim Rejections - 35 USC § 112

Claims 31-33 were rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. Applicants' amendments to the claims reciting the active method steps obviate the basis of the rejection.

Conclusion

No claims allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANOOP SINGH whose telephone number is (571)272-3306. The examiner can normally be reached on 9:00AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Paras can be reached on (571) 272- 4517. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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